

International Workshop on PCSELS 2024

Coffee Breaks & Poster Sessions: Aston University, Main Building 406-408, B4 7ET
Talks & presentations: Aston University, Main Building 417, B4 7ET
Lunch: Conference Aston Restaurant, B4 7ER
Workshop Dinner: The Bond, 180-182 Fazeley St, B5 5SE

Agenda for Thursday, 7th November:

09:00-10:00 Registration (Aston Main Entrance) & Welcome Coffee (MB 406-408)

10:00-10:10 Welcome by Prof. Aleks Subic (Aston Vice-Chancellor & Chief Executive)

10:10-11:00 Keynote Session (Chair: Prof. Richard De La Rue)

Prof. Susumu Noda, Kyoto University, Japan

Recent Progress in High-Brightness and High-Functionality Photonic-Crystal Surface-Emitting Lasers

11:00-12:30 Session 1 (Chair: Prof. Richard De La Rue)

Prof. Kyoko Kitamura, Tohoku University, Japan

Generation of Optical Vortex Beams from Photonic Crystal Surface-Emitting Lasers

Prof. Leon Shterengas, Stony Brook University, USA

Photonic Crystal Surface Emitting GaSb-based Type I Quantum Well Diode Lasers

Karl Boylan, Huawei Technologies R&D, UK

Static and Dynamic Performance of InGaAlAs based Photonic Crystal Surface Emitting Lasers at 1.3 μm

Hai Huang, The Chinese University of Hong Kong, China

Topological Dirac-Vortex Surface-Emitting Laser

12:30-14:00 Lunch (Conference Aston)

14:00-15:30 Session 2 (Chair: Dr Ben King)

Prof. Takashi Kuroda, National Institute for Materials Science (NIMS), Japan

Design and Performance of PC Resonators for Surface-Emitting Quantum Cascade Lasers

Dr. Lih-Ren Chen, National Yang Ming Chiao Tung University, Taiwan

Novel Designs of PCSELS Enabling New Applications

Prof. Ana Vukovic, University of Nottingham, UK

Laser PCSEL Model in Unstructured TLM Method

Ye Chen, Peking University, China

Vortex Microlaser Based on Collective Modes of Guided Mode Resonances

15:30-16:00 Coffee Break & Poster Session (MB 406-408)

16:00-17:30 Session 3 (Chair: Dr. Adam McKenzie)

Dr. Richard Taylor, Vector Photonics, UK

Vector Photonics: The Commercial Journey of PCSELS and Their Future Pathway

Prof. Åsa Haglund, Chalmers University of Technology, Sweden

Pushing Photonic Crystal Surface Emitting Lasers into the Deep-UV

Prof. Ling Lu, Chinese Academy of Sciences, China

Topological Cavity Surface Emitting Laser

17:30-18:15 Drinks Reception & Poster Session (MB 406-408)

18:15 Transportation to Dinner Venue (Meeting point: MB 406-408)

19:00-21:30 Workshop Dinner (The Bond)

International Workshop on PCSELS 2024

Coffee Breaks & Poster Sessions: Aston University, Main Building 402-404, B4 7ET
Talks & presentations: Aston University, Main Building 417, B4 7ET
Lunch: Conference Aston Restaurant, B4 7ER

Agenda for Friday, 8th November:

09:00-10:30 **Session 4 (Chair: Prof. Thomas Krauss)**

Prof. Boubacar Kanté, University of California, Berkeley, USA
New Physics in Photonic Crystals and Discovery of Scale-Invariant Lasers

Dr. Graham Berry, Huawei Technologies R&D, UK
Comparison of InP PCSELS and Other Traditional Lasers

Prof. Cunzhu Tong, Chinese Academy of Sciences, China
Triple-lattice Photonic Crystal Surface Emitting Lasers

Dr. Sang Soon Oh, Cardiff University, UK
Bound-State-in-the-Continuum Lasing Modes in InGaAs Nanowire Photonic Crystals

10:30-11:00 **Coffee Break & Poster Session (MB 402-404)**

11:00-12.30 **Industry Round Table (Chair: Joe Gannicliffe)**

Hosted by CSA Catapult

12:30-14:00 **Lunch (Conference Aston)**

14:00-15:30 **Session 6 (Chair: Prof. Richard Hogg)**

Dr. Takuya Inoue, Kyoto University, Japan
Theoretical Analysis of Large-Area Photonic-Crystal Surface-Emitting Lasers

Dr. Ben King, Ferdinand-Braun-Institut, Germany
Design of High-Power GaAs PCSELS with an All-Semiconductor Photonic Crystal

Prof. Weidong Zhou, University of Texas, Arlington, USA
Laterally Confined PCSELS and Coherent PCSEL Arrays

15:30-16:00 **Closing Remarks**